APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,839	07/23/2001	David B. Kay	1546.007US1	3919

21186	7590	01/27/2005

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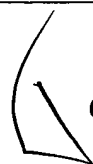
EXAMINER
GRAHAM, CLEMENT B

ART UNIT	PAPER NUMBER
3628	

DATE MAILED: 01/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
	09/911,839	KAY ET AL.
Office Action Summary	Examiner	Art Unit	
	Clement B Graham	3628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>07 September 2004</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-16</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-16</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date <u>9/07/04, 9/14/04</u>.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

DETAILED ACTION

1. Claims 1-7 remained pending and claims 8-16 has been added.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

  (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-2, 6, 8-9, 13-14, 16, are rejected under 35 U.S.C. 103(a) as being unpatentable over Getchius et al (Hereinafter Getchius U. S. Patent No 6,643, 640) in view of Wagstaff et al (Hereinafter Wagstaff (U.S. Patent No 6,360,213).

As per claims 1, Getchius discloses an information retrieval application, a computed assisted method for detecting content holes, comprising:

parsing a content body into a plurality of concept nodes ("i. e, "sever nodes" see column 4 lines 38-65") including a first ("i. e, first node" see column 1 line 58-65") concept node (see column 1 line 58-65) and determining a percentage of successful ("i. e, corresponding data sets "See column 26 lines 5-15) and service interactions as a function of concept node. (See column 25 lines 55-65 and column 26 lines 5-15).

Getchius fails to explicitly teach if the percentage of successful service interactions at the first concept node is below a predefined threshold, flagging a content hole.

However Wagstaff discloses the system typically involves determining whether the percentage of records in a data set having the key falls above or below a predefined threshold. (Note Fig. 7) and a particular key may be characterized according to the percentage of the records in a data set that have the key (the selectivity), and at a very low percentage, the value associated with that key is represented as an uncompressed row-ID list, and at some percentage indicated by reference, the value associated with the key is optimally represented as a compressed row-ID list. In fact, for all percentages between threshold and the second threshold, the value is optimally represented as a compressed row-ID list. At percentages higher than, however, the

optimal representation is a bitmap and determining how to represent the value of the hybrid index entry comprises determining whether the selectivity of the key of the record that is being inserted, deleted, or updated is above a predefined threshold, wherein when the key is found to be above the predefined threshold, the value of the hybrid index entry is represented as a bitmap and determining how to represent the value of the hybrid index entry comprises determining whether the selectivity of the key of the record that is being inserted, deleted, or updated is below a predefined threshold, wherein when it is found that the key is below the predefined threshold, the value of the hybrid index entry is represented as a list of row-IDs.(see column 12 lines 45-60 and column 5 line 10 and column 13-14 lines 5-65).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Getchius to include if the percentage of successful service interactions at the first concept node is below a predefined threshold, flagging a content hole taught by Wagstaff in order to detect and identify data that falls below a certain level.

As per claims 2, Getchius discloses an article comprising a computer readable medium having instructions thereon, wherein the instructions when executed in a computer create a system for executing a computer assisted method for detecting content holes (see column 1 line 58-65 and column 4 lines 38-65) comprising: parsing a content body into a plurality of concept nodes.(see column 4 lines 38-65) including a first.("i. e, first node" see column 1 line 58-65") concept node. (see column 1 line 58-65) and determining a percentage of successful.("i. e, corresponding data sets "See column 26 lines 5-15) and service interactions as a function of concept node. (See column 25 lines 55-65 and column 26 lines 5-15).

Getchius fails to explicitly teach if the percentage of successful service interactions at the first concept node is below a predefined threshold, flagging a content hole.

However Wagstaff discloses the system typically involves determining whether the percentage of records in a data set having the key falls above or below a predefined threshold. (Note Fig. 7) and a particular key may be characterized according to the percentage of the records in a data set that have the key (the selectivity), and at a very

low percentage, the value associated with that key is represented as an uncompressed row-ID list, and at some percentage indicated by reference, the value associated with the key is optimally represented as a compressed row-ID list. In fact, for all percentages between threshold and the second threshold, the value is optimally represented as a compressed row-ID list. At percentages higher than, however, the optimal representation is a bitmap and determining how to represent the value of the hybrid index entry comprises determining whether the selectivity of the key of the record that is being inserted, deleted, or updated is above a predefined threshold, wherein when the key is found to be above the predefined threshold, the value of the hybrid index entry is represented as a bitmap and determining how to represent the value of the hybrid index entry comprises determining whether the selectivity of the key of the record that is being inserted, deleted, or updated is below a predefined threshold, wherein when it is found that the key is below the predefined threshold, the value of the hybrid index entry is represented as a list of row-IDs.(see column 12 lines 45-60 and column 5 line 10 and column 13-14 lines 5-65).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Getchius to include if the percentage of successful service interactions at the first concept node is below a predefined threshold, flagging a content hole taught by Wagstaff in order to detect and identify data that falls below a certain level.

As per claims 6, 16, Getchius discloses an information retrieval application, a computed assisted method for detecting content holes, comprising:
parsing a content body into a plurality of concept nodes ("i. e, "sever nodes" see column 4 lines 38-65) including a first ("i. e, first node" see column 1 line 58-65") concept node (see column 1 line 58-65) (b) determining a percentage of successful service interactions (SSIs). ("i. e, corresponding data sets "See column 26 lines 5-15) as a function of the concept nodes (see column 4 lines 40-65) (c) determining a percentage of queries (see column 26 lines 5-10) as a function of the concept nodes.(see column 4 lines 40-65)

Getchius fail to explicitly teach computing a content hole score for the first concept node as a function of at least one of (b), (c), and (d).

However Getchius discloses from the table of linked lists of super-category terms established in the step the banner ad retrieval software may at a step rank the super-categories. In particular, the system at the step 81 may rank the documents, i.e. the super-categories, according to the appearance of the words occurring in the user query and in the categories and the he ranking may be performed by a variety of techniques. One such technique obtains a number for each term that appears in the user query and in the categories that consists of the product of the term frequency for that term and the inverse document frequency for that term. The sum of all the resulting numbers may be calculated for all super-categories, and the super-category with the highest sum may be the highest ranked document. The banner ad that was assigned to that highest ranked super-category at the step of the flow chart 52 can then be displayed upon completion of the ranking step of the flow chart 132. (see column 64 lines 30-56).

Getchius fails to teach determining a percentage of documents as a function of concept node, and (f) flagging a content hole if the content hole is below a predefined threshold.

However Wagstaff discloses the system typically involves determining whether the percentage of records in a data set having the key falls above or below a predefined threshold. (Note Fig. 7) and a particular key may be characterized according to the percentage of the records in a data set that have the key (the selectivity), and at a very low percentage, the value associated with that key is represented as an uncompressed row-ID list, and at some percentage indicated by reference, the value associated with the key is optimally represented as a compressed row-ID list. In fact, for all percentages between threshold and the second threshold, the value is optimally represented as a compressed row-ID list. At percentages higher than, however, the optimal representation is a bitmap and determining how to represent the value of the hybrid index entry comprises determining whether the selectivity of the key of the record that is being inserted, deleted, or updated is above a predefined threshold, wherein when the key is found to be above the predefined threshold, the value of the hybrid

index entry is represented as a bitmap and determining how to represent the value of the hybrid index entry comprises determining whether the selectivity of the key of the record that is being inserted, deleted, or updated is below a predefined threshold, wherein when it is found that the key is below the predefined threshold, the value of the hybrid index entry is represented as a list of row-IDs.(see column 12 lines 45-60 and column 5 line 10 and column 13-14 lines 5-65).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Getchius to determining a percentage of documents as a function of concept node, and (f) flagging a content hole if the content hole is below a predefined threshold taught by Wagstaff in order to detect and identify data that falls below a certain level.

As per claim 8, Getchius discloses in which each concept node represents a concept for the content body. (see column 4 lines 38-65 and see column 1 line 58-65).

As per claim 9, Getchius discloses in which the successful service interaction comprises a query from a user for which returned content matches ("i. e, resultant dataset") that user's intent. (see column 1 lines 58-65 and   column 4 lines 38-65 and column 5 lines 1-2).

As per claim 13, Getchius discloses in which each concept node represents a concept for the content body. (see column 1 lines 58-65 and   column 4 lines 38-65 and column 5 lines 1-2).

As per claim 14, Getchius discloses in which the successful service interaction comprises a query from a user for which returned content matches ("i. e, resultant dataset") that user's intent. (see column 1 lines 58-65 and   column 4 lines 38-65 and column 5 lines 1-2).

5.   Claims 3-5, 7, 10-12, 15, are rejected under 35 U.S.C. 103(a) as being unpatentable over Getchius et al (Hereinafter Getchius U. S. Patent No 6,643, 640) in view of Papierniak et al(Hereinafter Papierniak (U.S. Patent No 6,151, 584).

As per claim 3, Getchius discloses in a defined information retrieval system, a computer assisted method of charging for services, comprising:

determining a percentage of successful service interactions.("i. e, corresponding datasets") in a typical information retrieval system. (See column 25 lines 55-65 and column 26 lines 5-15).

and determining a percentage of successful service interactions.("i. e, corresponding data sets "See column 26 lines 5-15) for services provided in the defined information retrieval system. (See column 25 lines 55-65 and column 26 lines 5-15).

Getchius fails to teach billing as a function of the difference between the percentage of successful service interactions in a typical information retrieval system and the percentage of successful service interactions for services provided in the defined information retrieval system.

However Papierniak discloses a method of collecting subscriber specified information or supporting retrieval information to analyzing Internet and/or electronic commerce data over or from the World Wide Web for service providers, wherein the business data includes at least one of pre-paid subscriber data, how the subscriber purchases services and products, subscriber discounts, billing rates, subscriber free subscriptions, and information. (see column 24 lines 35-40) and The data received via the questionnaire or on-line forms is then parsed, manually or automatically, into environmental characterization/related data described above, and business related data. Examples of business related data include, e.g., pre-paid user, how user purchases services and products, discounts, billing rates, free subscriptions, free areas/information on web page. (see column 21 lines 30-35).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Getchius to include teach billing as a function of the difference between the percentage of successful service interactions in a typical information retrieval system and the percentage of successful service interactions for services provided in the defined information retrieval system taught by Papierniak in order to bill for services provided in the defined information retrieval system.

As per claim 4, Getchius discloses, the computer assisted method wherein determining a percentage of successful service interactions for services provided in the defined information retrieval system includes:

parsing a content body into a plurality of concept nodes. ("i. e, "sever nodes" see column 4 lines 40-65") including a first concept node.("i. e, first node" see column 1 line 60-65") determining a percentage of successful service interactions.("i. e, corresponding data sets ") as a function of each concept node. (See column 25 lines 55-65 and column 26 lines 5-15).

Getchius fails to teach wherein billing as a function of the difference between the percentage of successful service interactions in a typical information retrieval system and the percentage of successful service interactions for services provided in the defined information retrieval system includes weighting successful interactions as a function of concept node.

However Papierniak discloses a method of collecting subscriber specified information or supporting retrieval information to analyzing Internet and/or electronic commerce data over or from the World Wide Web for service providers, wherein the business data includes at least one of pre-paid subscriber data, how the subscriber purchases services and products, subscriber discounts, billing rates, subscriber free subscriptions, and information. (see column 24 lines 35-40) and the data received via the questionnaire or on-line forms is then parsed, manually or automatically, into environmental characterization/related data described above, and business related data. Examples of business related data include, e.g., pre-paid user, how user purchases services and products, discounts, billing rates, free subscriptions, free areas/information on web page. (see column 21 lines 30-35).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Getchius to include billing as a function of the difference between the percentage of successful service interactions in a typical information retrieval system and the percentage of successful service interactions for services provided in the defined information retrieval system includes

weighting successful interactions as a function of concept node taught by Papierniak in order to bill customers or users for services provided.

As per claim 5, Getchius discloses, an article comprising a computer readable medium having instructions thereon, wherein the instructions, when executed in a computer, create a system for executing a computer-assisted method, the method comprising: (see column 1 line 58-65 and column 4 lines 38-65)
parsing a content body into a plurality of concept nodes. ("i. e, "sever nodes" see column 4 lines 40-65) including a first concept node.("i. e, first node" see column 1 line 60-65") determining a percentage of successful service interactions.("i. e, corresponding data sets ") as a function of each concept node. (See column 25 lines 55-65 and column 26 lines 5-15).

Getchius fails to teach wherein billing as a function of the difference between the percentage of successful service interactions in a typical information retrieval system and the percentage of successful service interactions for services provided in the defined information retrieval system includes weighting successful interactions as a function of concept node.

However Papierniak discloses a method of collecting subscriber specified information or supporting retrieval information to analyzing Internet and/or electronic commerce data over or from the World Wide Web for service providers, wherein the business data includes at least one of pre-paid subscriber data, how the subscriber purchases services and products, subscriber discounts, billing rates, subscriber free subscriptions, and information. (see column 24 lines 35-40) and the data received via the questionnaire or on-line forms is then parsed, manually or automatically, into environmental characterization/related data described above, and business related data. Examples of business related data include, e.g., pre-paid user, how user purchases services and products, discounts, billing rates, free subscriptions, free areas/information on web page. (see column 21 lines 30-35).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Getchius to include billing as a function of the difference between the percentage of successful service interactions in a

typical information retrieval system and the percentage of successful service

interactions for services provided in the defined information retrieval system includes

weighting successful interactions as a function of concept node taught by Papierniak in

order to bill customers or users for services provided.

As per claim 7, Getchius discloses in a defined information retrieval system, a

computer assisted method of charging for services, comprising:

determining a number of successful service interactions an information retrieval system

over a period of time. (See column 25 lines 55-65 and column 26 lines 5-15).

Getchius fail to explicitly teach in and billing as a function of the number of

successful service interactions in a typical information retrieval system over a period of

time.

However Papierniak discloses a method of collecting subscriber specified

information or supporting retrieval information to analyzing Internet and/or electronic

commerce data over or from the World Wide Web for service providers, wherein the

business data includes at least one of pre-paid subscriber data, how the subscriber

purchases services and products, subscriber discounts, billing rates, subscriber free

subscriptions, and information. (see column 24 lines 35-40) and the data received via

the questionnaire or on-line forms is then parsed, manually or automatically, into

environmental characterization/related data described above, and business related

data. Examples of business related data include, e.g., pre-paid user, how user

purchases services and products, discounts, billing rates, free subscriptions, free

areas/information on web page. (see column 21 lines 30-35).

Therefore it would have been obvious to one of ordinary skill in the art at the time

the invention was made to modify the teachings of Getchius to include billing as a

function of the number of successful service interactions in a typical information retrieval

system over a period of time taught by Papierniak in order to bill customers or users for

services provided.

As per claim 10, Getchius discloses in which the successful service interaction

comprises a query from a user for which returned content matches ("i. e, resultant

dataset") that user's intent. (see column 1 lines 58-65 and   column 4 lines 38-65 and column 5 lines 1-2).

As per claim 11,   Getchius discloses 4, in which each concept node represents a concept for the content body. (see column 1 lines 58-65 and   column 4 lines 38-65 and column 5 lines 1-2).

As per claim 12, Getchius discloses 4, in which the successful service interaction comprises a query from a user for which returned content matches ("i. e, resultant dataset") that user's intent. (see column 1 lines 58-65 and   column 4 lines 38-65 and column 5 lines 1-2).

As per claim 15, Getchius discloses claim 7, in which the successful service interaction comprises a query from a user for which returned content matches ("i. e, resultant dataset") that user's intent. (see column 1 lines 58-65 and   column 4 lines 38-65 and column 5 lines 1-2).

Conclusion

RESPONSE TO ARGUMENTS

4.   Applicant's arguments files on 09/07/04 have been fully considered but they are not persuasive for the following reasons.

5.   In response Applicant's arguments regarding Getchius and Wagstaff and Papierniak.

6.   In response Applicant's arguments that references fail to teach "parsing a content body into a plurality of concept nodes and flagging a content hole if the percentage of successful service interactions at a particular concept node is below a predefined threshold and determining a percentage of documents as a function of concept node and computing a content hole score for the first concept node as a function of at least one of the successful services interactions the percentage of queries and the percentage of documents and billing charging a customer as a function or charging a customer based on the difference between the percentage of successful in a typical information retrieval system and the percentage of SSI in the particular information retrieval system".

First these limitations are addressed in a combination of teachings an stated, Getchius
discloses in his teachings parsing a content body into a plurality of concept nodes ("i. e,
"sever nodes" see column 4 lines 38-65") including a first ("i. e, first node" see column 1
line 58-65") concept node (see column 1 line 58-65 and determining a percentage of
successful ("i. e, corresponding data sets "See column 26 lines 5-15) and service
interactions as a function of concept node See column 25 lines 55-65 and column 26
lines 5-15 and medium having instructions thereon, wherein the instructions when
executed in a computer create a system for executing a computer assisted method for
detecting content holes (see column 1 line 58-65 and column 4 lines 38-65) comprising:
parsing a content body into a plurality of concept nodes see column 4 lines 38-65 and
from the table of linked lists of super-category terms established in the step the banner
ad retrieval software may at a step rank the super-categories. In particular, the system
at the step 81 may rank the documents, i.e. the super-categories, according to the
appearance of the words occurring in the user query and in the categories and the he
ranking may be performed by a variety of techniques. One such technique obtains a
number for each term that appears in the user query and in the categories that consists
of the product of the term frequency for that term and the inverse document frequency
for that term. The sum of all the resulting numbers may be calculated for all super-
categories, and the super-category with the highest sum may be the highest ranked
document. The banner ad that was assigned to that highest ranked super-category at
the step of the flow chart 52 can then be displayed upon completion of the ranking step
of the flow chart 132 see column 64 lines 30-56 and successful service interaction
comprises a query from a user for which returned content matches ("i. e, resultant
dataset") that user's intent (see column 1 lines 58-65 and   column 4 lines 38-65 and
column 5 lines 1-2 and determining a percentage of successful service interactions ("i.
e, corresponding datasets") in a typical information retrieval system. (See column 25
lines 55-65 and column 26 lines 5-15 and determining a percentage of successful
service interactions ("i. e, corresponding data sets "See column 26 lines 5-15) for
services provided in the defined information retrieval system See column 25 lines 55-65
and column 26 lines 5-15.

Wagstaff discloses the system typically involves determining whether the percentage of records in a data set having the key falls above or below a predefined threshold. (Note Fig. 7) and a particular key may be characterized according to the percentage of the records in a data set that have the key (the selectivity), and at a very low percentage, the value associated with that key is represented as an uncompressed row-ID list, and at some percentage indicated by reference, the value associated with the key is optimally represented as a compressed row-ID list. In fact, for all percentages between threshold and the second threshold, the value is optimally represented as a compressed row-ID list. At percentages higher than, however, the optimal representation is a bitmap and determining how to represent the value of the hybrid index entry comprises determining whether the selectivity of the key of the record that is being inserted, deleted, or updated is above a predefined threshold, wherein when the key is found to be above the predefined threshold, the value of the hybrid index entry is represented as a bitmap and determining how to represent the value of the hybrid index entry comprises determining whether the selectivity of the key of the record that is being inserted, deleted, or updated is below a predefined threshold, wherein when it is found that the key is below the predefined threshold, the value of the hybrid index entry is represented as a list of row-IDs. see column 12 lines 45-60 and column 5 line 10 and column 13-14 lines 5-65.

Papierniak discloses a method of collecting subscriber specified information or supporting retrieval information to analyzing Internet and/or electronic commerce data over or from the World Wide Web for service providers, wherein the business data includes at least one of pre-paid subscriber data, how the subscriber purchases services and products, subscriber discounts, billing rates, subscriber free subscriptions, and information. (see column 24 lines 35-40) and the data received via the questionnaire or on-line forms is then parsed, manually or automatically, into environmental characterization/related data described above, and business related data. Examples of business related data include, e.g., pre-paid user, how user purchases services and products, discounts, billing rates, free subscriptions, free areas/information on web page. see column 21 lines 30-35.

It is obviously clear the combinations of teachings discloses a system for parsing a content body into a plurality of concept nodes and flagging a content hole if the percentage of successful service interactions at a particular concept node is below a predefined threshold and determining a percentage of documents as a function of concept node and computing a content hole score for the first concept node as a function of at least one of the successful services interactions the percentage of queries and the percentage of documents and billing charging a customer as a function or charging a customer based on the difference between the percentage of successful in a typical information retrieval system and the percentage of SSI in the particular information retrieval system.

7.   Applicant also maintains that Wagstaff and Getchius cannot be combined, the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071,5 USPQ2d 1596 (Fed. Cir. 1988) and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The rationale to modify or combine the prior art does not have to be expressly stated in the prior art; the rationale may be expressly or impliedly contained in the prior art or it may be reasoned from knowledge generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law. In re Fine, 837 F.2d 1071, 5USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). See also In re Eli Lilli & Co., 902 F.2d 943, 14 USPQ2d 1741 (Fed. Cir. 1990) (discussion of reliance on legal precedent); In re Nilssen, 851 F.2d 1401, 7USPQ2d 1500 (Fed. Cir. 1988) (references do not have to explicitly suggest combining teachings); Ex parte Clapp, 227 USPQ 972 (Bd. Pat. App & Inter); and Es parte

Levengood, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993) (reliance on logic and sound scientific reasoning).

Also in reference to Ex parte Levengood, 28 USPQ2d, 1301, the court stated that "Obviousness is a legal conclusion, the determination of which is a question of patent law. Motivation for combining the teachings of the various references need not to explicitly found in the reference themselves, In re Keller, 642 F.2d 413, 208USPQ 871 (CCPA 1981). Indeed, the Examiner may provide an explanation based on logic and sound scientific reasoning that will support a holding of obviousness. In re Soli, 317 F.2d 941 137 USPQ 797 (CCPA 1963)."

8.   With respect to Applicant's argument that no prima facie case of obvious exists, Examiner respectfully submits that obviousness is not determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See In re Oetiker, 977F. 2d 1443, 1445,24 USPQ2d 1443, 1444 (Fed. Cir. 1992); In re Hedges, 783F.2d 1038, 1039, 228 USPQ* 685, 686 (Fed. Cir.1992); In re Piaseckii, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir.1984); In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976). Using this standard, the Examiner respectfully submits that he has at least satisfied the burden of presenting a prima facie case of obviousness, since he has presented evidence of corresponding claim elements in the prior art and has expressly articulated the combinations and the motivations for combinations that fairly suggest Applicant's claimed invention (See paper number 10). Note, for example, in the instant case, the Examiner respectfully notes that each and every motivation to combine the applied references are accompanied by select portions of the respective reference(s) which specially support that particular motivation and /or an explanation based on the logic and scientific reasoning of one ordinarily skilled in the art at the time of the invention that support a holding of obviousness. As such, it is not seen that the Examiner's combination of references is unsupported by the applied prior art of record. Rather, it is respectfully submitted that explanation based on the logic and scientific reasoning of one of ordinarily skilled in the art at the time of the invention that support a holding of obviousness has been adequately provided by the motivations and reasons indicated by the Examiner, Ex pane Levengood, 28 USPQ2d 1300(Bd. Pat. App &.,4/293 Therefore the combination of reference is proper and the rejection is maintained.

9.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8.   Any inquiry concerning this communication from the examiner should be directed to Clement Graham at (703) 305-1874. The examiner can normally be reached on Monday, Tuesday, and Wednesday from 5:30AM. to 6:OOPM.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clement B Graham whose telephone number is 703-305-1874. The examiner can normally be reached on 7am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung S. Sough can be reached on 703-308-0505. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-0040 for regular communications and 703-305-0040 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

CG

January 14, 2005

HYUNG SOUGH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600